

IN THE CLAIMS

1. (currently amended) A free fall simulator comprising:
  - a flight chamber;
  - at least one fan positioned below said flight chamber;
  - a noise attenuation housing substantially enclosing said at least one fan; and
  - a plurality of air intake openings in said housing, wherein one or more of said air intake openings face upwardly.
2. (original) The free fall simulator of claim 1 wherein said housing includes a canopy extending radially outwardly from said flight chamber.
3. (original) The free fall simulator of claim 2 wherein said canopy includes an outer peripheral edge and said housing further includes at least one noise attenuation stack positioned at the peripheral edge of said canopy and wherein at least one of said plurality of air intake openings is positioned in said at least one stack at a point above said canopy.
4. (original) The free fall simulator of claim 3 including a plurality of said stacks.
5. (original) The free fall simulator of claim 4 including a wall section joined along a portion of said peripheral edge and between adjacent ones of said plurality of stacks.
6. (original) The free fall simulator of claim 1 wherein said at least one fan includes a plurality of fans, each of said fans being positioned in a radially extending air intake duct having an air intake end.
8. (original) The free fall simulator of claim 6 wherein said housing includes an upper wall portion above said plurality of fans and said air intake ducts.
9. (original) The free fall simulator of claim 8 wherein said upper wall portion includes an outer peripheral edge and said housing further includes at least one noise attenuation stack positioned at the peripheral edge of said upper wall portion.

10-11. (Canceled)

12. (currently amended) A free fall simulator comprising:  
a flight chamber;  
a plurality of fans below said flight chamber and corresponding to air inlet ducts extending radially outwardly from below said flight chamber;  
a generally vertically disposed noise attenuation stack in communication with said air inlet chamber, wherein said stack includes one of an open top or a plurality of openings in said top.

13. (cancelled)

14. (original) A free fall simulator comprising:  
a flight chamber;  
at least one fan positioned below said flight chamber;  
a noise attenuation housing substantially enclosing said at least one fan;  
a substantially closed hood above said flight chamber;  
a plurality of openable and closeable louvers in said hood, and  
one or more recirculation columns between said hood and said noise attenuation housing.

15. (original) The free fall simulator of claim 14 including a temperature control for controlling the temperature within said flight chamber.

16. (original) A free fall simulator comprising:  
a flight chamber;  
an ingress/egress system allowing a user to enter and exit from said flight chamber or an area adjacent to said flight chamber, said ingress/egress system including an air lock door system including a pressure transition chamber between the ambient atmosphere and said flight chamber.

17. (original) The free fall simulator of claim 16 wherein said air lock door system includes a revolving door.

18. (original) The free fall simulator of claim 16 wherein said air lock door system includes a pair of air lock doors defining said transition chamber.

19. (original) A method of free fall simulation comprising:  
providing a flight chamber with sufficient dynamic pressure to support a user against the force of gravity;  
providing an air lock door system with a pressure transition chamber between the ambient atmosphere and said flight chamber;  
maintaining said flight chamber with sufficient dynamic pressure to support a user against the force of gravity while users enter or exit from said flight chamber or an area adjacent to said flight chamber through said air lock door system.

20. (original) The method of claim 19 wherein said air lock door system is a revolving door.

21. (new) A free fall simulator comprising:  
a flight chamber;  
a plurality of fans below said flight chamber and corresponding air inlet ducts extending radially outwardly from below said flight chamber;  
a noise attenuation stack in communication with said air inlet chamber;  
a canopy extending radially outwardly from said flight chamber to said noise attenuation stack; and  
a plurality of air inlet openings in said stack at a point above said canopy.

22. (new) A free fall simulator comprising:  
a flight chamber;  
at least one fan positioned below said flight chamber;  
a noise attenuation housing substantially enclosing said at least one fan and having an air inlet opening upwardly;

a substantially closed hood above said flight chamber; and  
one or more recirculation columns in communication between said hood and said noise  
attenuation housing, wherein a first portion of said air inlet is open to atmospheric air and a  
second portion of said air inlet is in communication with one of said recirculation columns.

23. (new) The free fall simulator of claim 22 including a noise attenuating housing associated with each of said one or more recirculation columns.